

# THE WORKING POOR FAMILIES PROJECT

POLICY BRIEF ■ SPRING 2012

## MAKING PERFORMANCE FUNDING WORK FOR ALL

John Quintero<sup>1</sup>

### THE WORKING POOR FAMILIES PROJECT

Strengthening State Policies for  
America's Working Poor

Millions of American breadwinners work hard to support their families. But, despite their determination and effort, many are mired in low-wage jobs that provide inadequate benefits and offer few opportunities for advancement. In fact, nearly one in three American working families now earn wages so low that they have difficulty surviving financially.<sup>2</sup>

Launched in 2002 and currently supported by the Annie E. Casey, Ford, Joyce, and Kresge foundations, the Working Poor Families Project is a national initiative that works to improve these economic conditions. The project partners with state nonprofit organizations and supports their state policy efforts to better prepare America's working families for a more secure economic future.

For more information:  
[www.workingpoorfamilies.org](http://www.workingpoorfamilies.org)

### INTRODUCTION

Public two-year colleges and four-year universities have traditionally received state funding based primarily on the numbers of students enrolled. Put differently, states historically have linked financial support of public higher education to institutional *inputs* like enrollment counts, rather than institutional *outcomes* such as how many students complete programs of study. In response to their recent budget difficulties, coupled with a heightened recognition of the economic need to raise the share of Americans with postsecondary credentials, numerous states are moving to tie public funding of higher education, at least in part, to institutional outcomes.

The idea of linking public investment to institutional outcomes—an idea known as performance funding—is hardly new. Interest has waxed and waned since the 1970s, but the last five years have seen an upswing in activity as states from Pennsylvania to Washington have established, reestablished, or overhauled models of performing funding. By late 2011, at least 20 states applied some form of performance funding to public two-year colleges, four-year universities, or both, with a few states like Tennessee even moving to base most institutional funding on outcomes.<sup>3</sup> Several other states also are considering adopting or readopting performance funding.

For states that have adopted or hope to adopt performance funding, an overarching challenge is guaranteeing that the systems foster success for all students, in particular low-income working adults enrolled at two-year colleges. Given their policy expertise in this area, the state-based nonprofit organizations that partner with **The Working Poor Families Project (WPFP)**, a national initiative to strengthen state policies influencing the

well-being of low-income working families, are ideally situated to ensure that the educational needs of low-income, low-skill adults are not overlooked when states design, adopt, implement, and evaluate performance funding.

The current wave of interest in performance funding—a wave that some observers have dubbed “Performance Funding 2.0”—has emerged from a confluence of factors. First, in response to the budget difficulties confronting many states, policymakers are demanding that public colleges and universities demonstrate clearly their efficient use of scarce tax dollars. Second, state leaders have grown increasingly aware of the economic need to raise the numbers of Americans with postsecondary credentials and have embraced connecting “state funding directly to institutional performance on specific indicators such as rates of retention, graduation, and job placement” as a tool for aligning institutional performance with workforce and economic development goals.<sup>4</sup> Finally, numerous philanthropic foundations, policy organizations, and governmental agencies are championing performance funding as a means of strengthening public higher education.<sup>5</sup>

Despite the interest, there exists little “firm evidence that performance funding significantly increases rates of remedial completion, retention, and graduation.”<sup>6</sup> Furthermore, states can actually design performance funding in ways that ignore the needs of such nontraditional students as low-skill adults and that discourage institutions from serving them. Performance funding also can inject volatility into the budgets of colleges and universities, which may hinder their abilities to serve students.<sup>7</sup> The problems are particularly worrisome for two-year colleges, which often receive less public support while serving students, such as low-skilled working adults who face multiple barriers to college success.<sup>8</sup>

Strengthening the capacities of public postsecondary institutions to help more students earn credentials is a critical state policy goal. Without postsecondary education, working adults are unlikely to obtain the kinds of jobs needed to provide for themselves and their families. States, too, suffer when they lack the skilled workers that

employers increasingly demand. After all, occupational forecasts suggest that 63 percent of the jobs that the United States will net by 2018 will require workers with a postsecondary credential.<sup>9</sup> Given that a sizable share of that future workforce is already in the labor force, it is imperative that states help all students, including adult workers, improve their educational levels if states are to have enough skilled workers.

To aid state partners in their efforts, this Policy Brief offers an overview of performance funding. The brief begins by contrasting two models of funding public higher education and then traces the evolution of performance funding. Attention next turns to design characteristics and concerns about performance funding, supplemented by profiles of the models used in several states. The brief concludes by identifying policy directions for WFPF state partners to pursue so as to ensure that systems of performance funding work for the benefit of America’s 10.2 million low-income working families.<sup>10</sup>

## MODELS OF FUNDING PUBLIC HIGHER EDUCATION

Since its inception in the 1970s, performance funding has proven to be a concept that is simple to explain, difficult to implement, and radical in nature. The idea of tying state funding for public higher education to student outcomes as a means of encouraging institutions to become more efficient, productive, and accountable is one that is easy to articulate yet has failed to gain traction. Over the past 30 years, no more than half of the states have adopted performance funding with nearly half of those states eventually abandoning their efforts.<sup>11</sup> Furthermore, performance funding represents a stark change from established budgeting practices that connect funding to institutional inputs. Appreciating the differences between input- and outcome-based funding models therefore is a prerequisite for any meaningful analysis.

### Input-Based Funding Models

Public institutions historically have financed their core instructional programs through a combination

of state funds and tuition revenues with tax dollars responsible for covering the bulk of the costs. To determine funding levels, states generally rely on formulas that award dollars in relation to the number of students enrolled in a specified period. Consider the North Carolina Community College System, which derives some 70 percent of its support from the state. Individual colleges receive funds based on the number of full-time equivalent (FTE) students enrolled in the prior year.<sup>12</sup> For curriculum programs, a college earns one FTE for every 32 hours of instruction provided over a two-semester period, with each FTE worth \$5,035 in 2011-2012.<sup>13</sup>

States commonly employ different models to determine support for two-year and four-year institutions, but regardless of the details, funding models like the one applied to North Carolina's community colleges base funding on institutional *inputs* like student enrollments.<sup>14</sup> It does not matter if a student passes a class, persists in a course of study, or earns a credential; as long as a student spends enough time in the classroom, a college will receive an allotment of public dollars. From a college's perspective, this is logical, as it is the presence of a student in a classroom that generates costs; but from a societal standpoint, what matters is what a student accomplishes.

While public institutions are themselves often critical of enrollment-based formulas, budget officials dislike them for a different reason; namely, they foster incremental budgeting. In most states, enrollment levels from the prior year become the basis for funding in for the current year, a process that causes total annual financial requirements to rise over time.<sup>15</sup> Covering escalating costs can become extremely problematic during times of rapid enrollment growth and during recessions, periods when states find themselves squeezed between required and available resources.

### Outcome-Based Funding Models

In contrast to input-based funding models, performance funding connects state financial support for higher education not to inputs but to *outcomes* like “student retention, attainment of certain credit levels, and other student outcomes.”<sup>16</sup>

The concept is that institutions respond to financial realities, so changes to funding methods will prompt administrators to “take the measures necessary to retain or enhance their institution’s funding.”<sup>17</sup> Such measures might include finding operating efficiencies and reallocating resources.

In effect, performance-based funding attempts to boost student outcomes indirectly by adopting incentive structures that lead to *intermediate* “modifications of institutional policies, programs, and practices—such as changes in instruction or in student support services—that will result in the *ultimate* outcomes of interest to policymakers, such as more baccalaureate graduates or higher job placement rates.”<sup>18</sup> For such models to succeed, they require clear goals, meaningful measures of goal attainment, and worthwhile rewards, as will be discussed shortly.<sup>19</sup>

## THE EVOLUTION OF PERFORMANCE FUNDING

While performance funding has received much attention in recent years, the model is hardly novel. In 1979, Tennessee became the first state to establish a permanent system of performance funding when it institutionalized an experimental program crafted earlier in the decade by administrators with the Tennessee Higher Education Commission. The 1979 model allowed two-year and four-year institutions to voluntarily participate in a system that granted unrestricted funding bonuses of up to 2 percent of normal appropriations to institutions that improved their performance on a set of five indicators related chiefly to institutional quality. Although the Volunteer State’s program has undergone significant revisions over the years and no longer resembles its initial form, Tennessee’s decision set in motion a slow, ongoing, evolutionary process of state-level experimentation with performance funding (**box 1**).<sup>20</sup>

### Performance Funding 1.0

At first, few states followed Tennessee down the path of performance funding. This changed in the 1990s, when a group of states including Missouri, Florida, Ohio, South Carolina, Illinois, and

## BOX 1. TENNESSEE, THE GRANDFATHER OF PERFORMANCE FUNDING

Tennessee is home to the nation's oldest, continuously operating system of performance funding. The Volunteer State's program traces its roots to 1974, when administrators within the Tennessee Higher Education Commission used philanthropic support to develop funding guidelines and measures in conjunction with the state's public colleges and universities. In 1979, the program became permanent, effective as of 1980-1981.

Consistent with the concerns of the day, the original program aimed to improve the quality of public higher education, which explains the inclusion of indicators like program accreditation. Proponents also thought that improved accountability and enhanced performance could build support for future state investments that would finance further growth. Furthermore, when compared to other states that eventually adopted performance funding, Tennessee's approach emerged entirely from within the higher education community, a fact that has likely contributed to the initiative's acceptance and endurance.

The original 1979 system awarded schools unrestricted bonuses of up to 2 percent of their regular annual appropriations based on performance on five indicators: program accreditation, student major field performance, student general education performance, stakeholder evaluations of instructional program, and peer reviews of academic programs. Participation was voluntary, and the emphasis was on institutional self-improvement, not inter-institutional competition.

Tennessee's program has remained relatively stable in design, though the measures have changed and the size of the bonus pool has risen as high as 5.45 percent of annual support. In 2010, however, a significant change occurred when the state legislature passed the Complete College Tennessee Act, which fundamentally altered the state's funding models for higher education starting in fiscal year 2011-2012. While the act did not replace the older performance model, it set in motion changes that may diminish the influence of that model.

The 2010 act cut almost all enrollment-based funding for public colleges and universities in favor of outcome-based support. For two-year colleges, funding is linked to eight indicators: student completion of 12, 24, and 26 credit hours; workforce training outcomes; dual enrollment students; associate degrees and certificates completed; awards per FTE enrollment; job placement outcomes; university transfer; and remedial and developmental success. Colleges also receive bonuses based on their success in serving low-income and adult students.

Despite its long history, no conclusive evidence suggests that performance funding, by itself, has boosted student outcomes in Tennessee. Research has identified promising intermediate changes in institutional behaviors that may contribute to student success, but studies have found no evidence of statistically significant impacts on retention and graduation. At the same time, the changes in the performance funding system adopted under the Complete College Act—changes that, among other things, place a greater emphasis on student outcomes and embeds performance incentives within core funding models—may bring about such improvements in time, though it is too soon to know.

Sources: Kevin Dougherty et al., *The Politics of Performance Funding in Eight States: Origins, Demise, and Change* (New York: Community College Research Center, 2011), 14-23 and 150-152; and Kevin Dougherty and Vikash Reddy, *The Impacts of State Performance Funding Systems on Higher Education Institutions: Research Literature Review and Policy Recommendations* (New York: Community College Research Center, 2011), 12-13 and 25-28.



Washington adopted performance funding in quick succession. This wave of policy experimentation—a wave that some observers call “Performance Funding 1.0”—crested in the adoption of performance-based funding in nearly half of the states by the end of the 1990s.

First-wave models broadly mirrored the original one in Tennessee; in other words, they took “the form of a bonus over and above regular state funding for higher education.”<sup>21</sup> Individual institutions typically qualified for supplemental funding based on their success in achieving a mix of ultimate outcomes such as student completion, intermediate outcomes such as student retention, and, occasionally, quality outcomes such as the share of students from specified backgrounds enrolled.<sup>22</sup> In Florida, for instance, two-year colleges could receive bonuses worth between 1 and 2 percent of their normal state allotments based on their achievement of such outcomes as degree completion, university transfer, and job placement.<sup>23</sup>

As with much state-level policymaking, the decision to implement performance funding during the 1990s emerged from state-specific factors. That said, a review of the origins of several first-wave efforts by Columbia University’s Community College Research Center identified several common conditions that fostered adoption: legislative efforts to manage budget squeezes, private-sector concerns about the cost and efficiency of higher education, political interest from growing numbers of Republican state legislators, and institutional receptivity from educational leaders. Meanwhile, opposition from four-year universities was a key factor responsible for blocking performance funding entirely, as happened in California; limiting it to two-year colleges, as was the case in Florida; or bringing about its sunset, as occurred in Washington.<sup>24</sup>

Over time, first-wave models demonstrated little staying power. Although approximately half of the states adopted performance funding, nearly half of those states ultimately abandoned their efforts, and even states that preserved their systems altered them radically.<sup>25</sup> According to a Community College Research Center analysis of three states that

discontinued their programs, “performance funding was more likely to be terminated when there were budget cuts, there was a change of administration, the initial champions of a policy were no longer around, and the resistance to termination lacked capable leadership or effective defensive tactics.”<sup>26</sup>

Particularly important were opposition from the higher education community, notably four-year universities, tepid support from the business community, and budget cuts. Budget cuts like those that followed the 2001 recession led institutions to prioritize core funding over performance bonuses—a logical choice given the small size of the bonuses relative to base support. Consider how, in one state that ended performance funding, Illinois, the bonus pool for two-year colleges available in fiscal year 2001 equaled just 0.4 percent of the normal state appropriation.<sup>27</sup>

## Performance Funding 2.0

Performance funding has attracted renewed interest since 2007, when Washington created a new program. This wave of interest, which some analysts have dubbed “Performance Funding 2.0,” is an outgrowth of budgetary, economic, and organizational factors, such as a heightened emphasis on student success.

Budgetary influences have played a major role in sparking renewed interest in performance funding. The “Great Recession” into which the country fell in late 2007 severely depressed state revenue collections at the same time that postsecondary enrollments were rising, due to the influx of displaced workers seeking retraining and to the aging of the large “Millennial” generation (born between 1982-2000) into the college population. Between 2007-2008 and 2010-2011, total public FTE enrollments grew by 19.3 percent, while aggregate inflation-adjusted state support for higher education fell by \$4.5 billion, or 5 percent.<sup>28</sup> While federal dollars provided through the American Recovery and Reinvestment Act offset much of the decline, state investments in postsecondary education are no longer keeping pace with enrollment growth, with many states appearing unlikely to adopt the systematic revenue reforms needed to reconnect the two.

Bleak budget environments have led many state legislators to look again at performance funding as a way of prompting public institutions to become more efficient with scarce tax dollars and clearly demonstrate their impacts on students. Some state leaders have moved even further and have embraced performance funding as a tool for advancing a larger college success agenda.

Since the 1990s, policy experts and public leaders have recognized that boosting the number of Americans with postsecondary credentials is vital to fostering the long-term economic competitiveness of the nation and helping individuals secure places in the middle class. After all, occupational forecasts suggest that a majority of the jobs that the United States will net by 2018 will demand workers with some kind of postsecondary credential, yet most states are not on track to produce enough credential completers.<sup>29</sup> Meeting that challenge will require public postsecondary institutions to become more efficient and to better “align their fiscal policies with their statewide goals for workforce development and economic prosperity.”<sup>30</sup>

Finally, compared to the 1990s, there exists a larger set of external champions for performance funding. Numerous philanthropic organizations such as the Bill and Melinda Gates Foundation, public policy organizations such as Complete College America, and governmental agencies such as the U.S. Department of Education are supporting performance funding as a way of strengthening public higher education and increasing the number of Americans with postsecondary credentials. The Lumina Foundation for Education is actively supporting state efforts to implement performance funding as part of a broader effort to improve the productivity of the higher education sector. The Foundation has a “Big Goal” of raising the share of the population with a high-quality postsecondary credential to 60 percent by the year 2025.<sup>31</sup>

By one count, 10 states have established new models of performance funding since 2007 with other states debating the adoption of performance funding (**Appendix 1: Table 1**).<sup>32</sup> Compared to first-wave models, current efforts differ in three key respects:

- ♦ Recent initiatives define student outcomes broadly to include ultimate ones such as degree completion and intermediate ones like the passage of “gatekeeper” and developmental education courses.
- ♦ Recent initiatives have raised the levels of core funding awarded according to performance, with some states moving to reduce or eliminate enrollment-based funding.<sup>33</sup>
- ♦ Recent initiatives enjoy broader support thanks to the improvements in internal data systems, the emergence of new political champions, and the endorsement of outside stakeholders.

## DESIGNING SYSTEMS OF PERFORMANCE FUNDING

Second-wave models of performance funding have benefited from the ability of their architects to draw on the successes and failures of the efforts undertaken in the 1990s. Those insights have greatly informed the design of recent performance systems. One way of illustrating how the lessons learned from past efforts are enriching current initiatives is by sketching the evolution of Ohio’s efforts to link support of two-year colleges to institutional outcomes.

### Funding Performance in Ohio’s Two-Year Colleges

Motivated by concerns about the condition of public higher education, Ohio opted in 1995 to implement performance funding for the state’s four-year universities and two-year colleges as part of a larger reform initiative. This initiative, which revolved around a set of “challenges,” awarded small financial bonuses to colleges and universities based on their successes in achieving specified student outcomes like, in the case of two-year colleges, university transfers.<sup>34</sup>

In 2007, Ohio launched a comprehensive review and reform of its system of higher education at the instigation of the state’s new governor. Among other changes, this initiative revitalized the Buckeye State’s interest in performance funding, led to

the overhaul of the model applied to public universities, and prompted the establishment of a new two-year college model effective in fiscal year 2010-2011. While most core support for two-year colleges still reflects enrollment levels, an escalating share of the core budget calculation reflects performance. Borrowing from a model crafted in Washington, Ohio awards “success points” to colleges when students achieve certain intermediate outcomes, such as completing an initial developmental education course, and ultimate ones like earning an associate’s degree. To calculate performance, the state considers an institution’s performance over a three-year period and, at least at first, will not penalize institutions. Over time, however, the stop-loss provision will disappear with the share of funding tied to outcomes rising to 20 percent by fiscal year 2014-2015.<sup>35</sup>

### **Design Characteristics of “Performance Funding 2.0”**

The choices Ohio made when overhauling its system of performance funding reflect the core characteristics of second-wave models of performance funding—models that explicitly attempt to overcome the flaws that research suggests compromised first-wave models. Those defects included “weaknesses in the design of the incentive formulae, unstable funding, the loss of original champions in government and business, opposition from higher education leaders, and unintended negative consequences for equity.”<sup>36</sup> Ohio attempted to address those shortfalls by quickly committing itself to performance funding and then working slowly to implement the process in ways that included educational leaders and stakeholders like the Ohio Association of Community Colleges, cultivated broad political and popular support, provided real financial incentives, respected the diversity of institutional missions, and defined success broadly.<sup>37</sup> Particularly noteworthy are Ohio’s decisions to embed performance funding within core institutional allotments and to provide performance funds at a level likely to command institutional attention. Overall, Ohio’s experience illustrates six promising design characteristics of models of “Performance Funding 2.0.”

### **1. LINK PERFORMANCE FUNDING TO THE ACHIEVEMENT OF CLEAR, SHARED, STATE POLICY GOALS**

One characteristic of second-wave efforts is the linking of financial resources to clear, shared, state policy goals. Performance funding is not an end in and of itself, but rather it is a tool for achieving valuable public policy goals. States must clearly demonstrate the connections between ends and means, just as Illinois has attempted. Though Illinois adopted a performance funding system for its two-year colleges in 1997, policymakers permitted the system to lapse in 2002.<sup>38</sup> When the state recently sought to launch a new model of performance funding, it attempted to link the proposed system to the “Illinois Public Agenda for College and Career Success.” The document, which was the product of a prior public consultation process, established four statewide policy goals—raising levels of educational attainment, ensuring college affordability, increasing the numbers of high-quality postsecondary credentials awarded, and better aligning educational assets to economic needs.<sup>39</sup> This framework provides a reference point against which Illinois’ civic leaders can judge the relevance and effectiveness of policy changes, including the development of performance funding allocations slated to take effect in fiscal year 2012-2013.<sup>40</sup>

An advantage of tying performance funding to common goals is that the process of establishing those goals can help to cultivate the support and engagement of broad groups of stakeholders. One reason why some first-wave models failed was because states often imposed them on public institutions rather than developing them in consultation with educational leaders and other interested parties like the business community and social justice organizations.<sup>41</sup> Such participation increases the odds that programs will endure over time.

### **2. PROVIDE MEANINGFUL, STABLE FINANCIAL REWARDS**

When it comes to financial incentives, second-wave efforts strive to provide meaningful, stable financial rewards to institutions. A key reason why

many first-wave models failed was that the dollar amounts at stake were small supplements to regular, enrollment-based appropriations. Institutions therefore prioritized their main funding streams over performance-based supplements. If systems of performance funding are to succeed, states should “make the performance funding pool large enough to command attention.”<sup>42</sup> One way of accomplishing this is to embed performance funding into core financial allocations. Tennessee, for instance, recently moved to tie almost all core funding to performance rather than enrollments, while a number of states with active second-wave initiatives appear to be moving toward linking between 10 and 20 percent of base funding to performance.<sup>43</sup>

### **3. RECOGNIZE THE DIVERSITY OF INSTITUTIONAL MISSIONS WITHIN PUBLIC SYSTEMS**

Another important design characteristic is the recognition of the diversity of missions found within systems of public higher education. A defining characteristic of American higher education is the sheer variety of institutions, which range from highly selective, research-intensive universities to branch campuses to “open door” two-year colleges. Furthermore, many states established specific schools to serve particular communities and populations. Given such institutional diversity, states can tailor models of performance funding by school type rather than imposing one uniform model. For example, Ohio’s new system of performance funding recognizes differences in missions by treating main university campuses, regional university campuses, and two-year colleges differently.<sup>44</sup> Relatedly, while acknowledging differences in missions, the most effective designs may be those that grant individual campuses the latitude and flexibility to achieve overarching state policy goals.

### **4. ENCOURAGE SIMPLICITY IN THE DESIGN OF MEASUREMENT SYSTEMS**

When it comes to the tracking of performance, second-wave measurement systems tend to strive for simplicity. Given advances in information systems and technologies, it is tempting to add new measures and additional complexity to systems of

performance funding, yet too much complexity and too many measures can yield ineffective systems. In the 1990s, for instance, South Carolina attempted to shift most support for higher education to a performance model that reflected performance on 37 indicators grouped into nine critical success factors. However, the scale and complexity of the effort led the system to effectively collapse under its own weight.<sup>45</sup> Contrast that to Indiana’s proposed system of performance funding for two-year colleges, which contains six measures related to degree completion, academic progression, and college productivity.<sup>46</sup>

### **5. DEFINE PERFORMANCE BROADLY**

The measures used in second-wave models tend to define performance broadly. A common temptation is to consider success only in relation to ultimate outcomes like credential completion, but higher education is in many ways a process and intermediate outcomes matter, especially for students facing serious barriers to success. Rewarding colleges and universities for the achievement of intermediate outcomes that credible research finds linked to long-term success, as happens in Ohio through the awarding of “success points” and in Washington through the recognition of “momentum points,” can encourage institutions to lead students down pathways to success. An essential feature of such models is that they enhance educational equity by providing incentives for serving all students, not just those most prone to succeed.

### **6. SIGNAL CLEAR EXPECTATIONS, START SMALL, AND BUILD STEADILY**

Promising second-wave efforts attempt to signal clear expectations, start small, and build over time. Because performance funding represents a radical shift from standard budget practices in most states, the immediate, wholesale adoption of new financial models is apt to cause more problems than it solves. Instead, once states have decided to embrace performance funding, they should clearly communicate what the expectations and processes are and implement the changes incrementally. Gradual implementation provides institutions with opportunities to adjust to new systems and



## BOX 2. REWARDING ACHIEVEMENT IN WASHINGTON

Washington State has twice experimented with performance funding. The first attempt occurred in 1997, when the state budget directed all institutions to develop performance measures during the biennium's first year; if institutions failed to meet certain standards, the state would withhold part of the appropriation authorized for the second year of the biennium. For various reasons, this experiment did not last beyond the two-year budget window.

In 2007, the Washington State Board for Community and Technical Colleges revisited the issue of performance funding as part of a larger Student Achievement Initiative. The development of this project reflected many of the lessons learned from the failure of the state's first attempt to establish performance funding and unfolded in a slow, inclusive manner directed by the state's two-year colleges themselves with the endorsement of other stakeholders.

The new system underwent testing in 2007-2008 and implementation in 2008-2009. The goal is to provide colleges with small financial rewards based on their successes in moving students toward certain critical thresholds. This approach rewards colleges for their abilities to achieve intermediate outcomes, such as student persistence, and signals the importance of leading students along an educational pathway.

Central to Washington's system of performance funding is the use of "momentum" or "achievement" points in relation to four broad areas: basic literacy and developmental instruction, collegiate credit completion, quantitative and computational instruction, and program completion. For example, a college may earn one momentum point for every student completing an initial 15 collegiate credits; another point for every student completing an initial 30 collegiate credits; an additional point for the first five collegiate credits earned in quantitative and computational courses; and a final point for every degree, countable certificate, or apprenticeship completed in a year. Schools also earn points for outcomes in literacy and developmental programs. Note that Washington includes almost all students, regardless of program, funding, or enrollment status, in the performance calculations.

The selection of momentum points was not random; instead, they reflect research findings that identified the completion of one year of collegiate study along with receipt of a credential to be a "tipping point" after which students realize meaningful labor market gains. In short, the system strives to encourage colleges to lead students toward employment and economic success.

The idea of momentum points has great appeal, especially for two-year colleges. One advantage is that it rewards colleges for achieving results in all of their program areas, including adult literacy and developmental education. Another advantage is that the system defines success broadly. Moreover, by rewarding achievement in programs like literacy instruction, the system creates incentives for serving adult learners and other students facing educational challenges.

As with all recent experiments with performance funding, it is not yet clear what ultimate student outcomes Washington's system might yield. Nevertheless, the design of the model attempts to overcome some of the flaws of first-wave models and so has become a template for other states.

Sources: Kevin Dougherty et al., *The Politics of Performance Funding in Eight States: Origins, Demise, and Change* (New York: Community College Research Center, 2011), 64-76; and Washington State Board for Community and Technical Colleges, *Meeting Washington State's Need for an Educated Citizenry and Vital Economy* (Olympia, WA: author, 2007).

expectations while minimizing potential disruptions to enrolled students.

## CONCERNS ABOUT PERFORMANCE FUNDING

Despite its intuitive appeal and long history, performance funding remains a controversial idea. On one level, skepticism from within the higher education community is natural and reasonable given how performance funding represents a stark divergence from customary practices; but on another level, legitimate concerns exist as to whether performance funding can deliver the promised results with a minimum of unintended consequences. Adding to this uncertainty is the fact that much of what is known about the effectiveness of performance funding comes from studies of first-wave models, not the second-wave ones launched since 2007. Nevertheless, four important criticisms merit consideration.

Perhaps the most important criticism is that “the research literature does not provide firm evidence that performance funding significantly increases rates of remedial completion, retention, and graduation” and that claims to the contrary “are not based on solid data that control for other possible causes of changes in student outcomes beyond performance funding.”<sup>47</sup> What the existing research studies show is that the adoption of performance funding often affects changes in institutional behaviors, such as improved use of data within institutional planning systems, heightened awareness of overarching state policy goals for higher education, modifications in academic policies and practices, and changes in student services.<sup>48</sup> These intermediate changes may benefit students over time, but there is little proof that performance funding, by itself, has boosted ultimate student outcomes, even in states with longstanding systems like Tennessee. Of course, the lack of clear success may be a by-product of the limitations of first-wave models—limitations that new models have sought to overcome.

A second concern related to performance funding is that it has received lukewarm support from key stakeholders. Many members of the higher

education community remain dubious and fear that performance funding erodes institutional autonomy, fails to capture the complexity of contemporary higher education, distorts institutional missions, and harms students.<sup>49</sup> Some of this skepticism may be a legacy of first-wave models implemented without regard to the concerns of educators and institutions of higher learning. Similarly, the long-term financial commitment of states and state leaders remains untested. Many first-wave models collapsed when political leadership changed or states terminated funding in response to budget shortfalls, and it is too soon to know if second-wave models will enjoy backing that is more enduring. Absent long-term, stable financial commitments, models of performance funding are apt to fail.

A third concern is that performance funding may create disincentives to serving nontraditional students, including low-skilled working adults, and those facing obstacles to college success. If ultimate student outcomes like program completion are the sole yardstick of success, colleges and universities may elect to serve only the individuals most likely to succeed. Moreover, institutions may feel pressured to weaken academic standards or otherwise relax the rigor of educational programs. Some students therefore may not have an opportunity to pursue higher education at all, while others receive less than adequate instruction. Either way, those individuals will find themselves at profound disadvantages in the labor market. Although some second-wave models strive to prevent such outcomes by tailoring funding formulas to institutional missions and offering incentives for serving students, it is still too soon to know if those strategies will prove effective.

Finally, a significant concern exists as to whether performance funding will divert attention from the troubling trend of disinvestment in public higher education. Research by Dēmos, a national public policy organization, found that most states have reduced support of public higher education significantly since 1990 with little evidence suggesting a reversal in course if and when budgets recover from the most recent downturn.<sup>50</sup> Fiscal austerity is a compelling motivation for public

institutions to become more efficient in their use of public resources, yet public investment has fallen despite an overall increase in national prosperity and changes in the size and composition of the college population. Serving today's students may require new investments, especially if institutions are to help students facing significant barriers to college success while providing the kinds of high-cost programs, particularly in technical fields, required to train the skilled workers needed by growing industries. Despite its potential, performance funding is not a substitute for adequate investment in public higher education.

## **POLICY RECOMMENDATIONS FOR WFPF STATE PARTNERS**

Since 2007, numerous states have taken an interest in performance funding as a means of encouraging public institutions of higher education to become more efficient and better focused on statewide workforce and economic development goals. Several states have already established or reestablished models of performance funding, and others are weighing the possibility. As new initiatives surface and recent ones mature, WFPF state partners should strive to bring their organizational expertise, credibility, and capacities to bear to ensure that second-wave models address the distinct educational needs of low-income, low-skill working adults. While specific policy challenges and possibilities will vary by state, WFPF partners should focus their attention on five policy areas.

### **1. ARTICULATE THE CONNECTION BETWEEN POSTSECONDARY SUCCESS AND ECONOMIC PROSPERITY FOR ALL**

Discussions of performance funding often center on highly technical questions like the design of funding formulas. While such issues matter, they must not obscure the fact that performance funding should be a means for improving postsecondary education for all students and not an end in itself. Ultimately, postsecondary education requires strengthening because it has become an essential requirement for entry into America's middle class,

as well as a driver of economic prosperity. Unless debates about performance funding reflect those facts, they will fail to yield the structural changes needed to bring about successful outcomes for all students, not just those most likely to succeed. One risk is that states may design systems of performance funding in ways that overlook the particular needs of nontraditional students such as low-income, low-skill adults or that discourage institutions from offering relevant programs, like developmental education and literacy instruction. In response, WFPF state partners must emphasize the need for all students to succeed, including low-skilled and nontraditional ones; this idea must serve as a guiding principle in the development and execution of systems of performance funding.

### **2. DEFINE POSTSECONDARY EDUCATION TO INCLUDE THE GREATEST NUMBERS OF STUDENTS AND PROGRAMS**

For a system of performance funding to nurture economic prosperity for all, it needs to measure performance broadly to capture the greatest number of students and educational programs. For example, a system that defines success for two-year colleges strictly in relation to university transfer would exclude students enrolled in technical fields and in certificate and diploma programs. Similarly, performance indicators that only count students enrolled on a full-time basis would overlook all those who attend on a part-time basis. State partners therefore should back the development of performance systems that define success broadly and include as many students as possible in the performance calculations, regardless of program, funding, or enrollment status. Specifically, performance measures should capture all students, not just those in traditional collegiate programs, but also those pursuing instruction in adult basic literacy, English as a second language, developmental education, and career technical education. States should also count all students, including those enrolled on a part-time basis and in non-degree programs. To ensure that all achieve progress, states should measure, consider, and value performance for key segments of the student population, such as students who are older, who are female, who are members of racial and ethnic

minority groups, who are first-generation college students, and who receive need-based financial aid.

### **3. ADOPT PERFORMANCE CRITERIA THAT REWARD ULTIMATE AND INTERMEDIATE EDUCATIONAL OUTCOMES**

While student attainment of credentials is an important outcome for which institutions deserve recognition, student persistence also merits reward. By tracking and rewarding colleges for their achievements in leading students toward educational checkpoints related to student success, systems of performance funding can encourage institutions to focus on moving students along educational pathways. One method for this is to award “achievement” points along the lines followed in Washington (**box 2**). Key transition points that deserve recognition include the following:

- ♦ Completion of a first course in developmental education
- ♦ Transition from developmental education to a first collegiate “gateway” or initial course
- ♦ Attainment of the first 15 and 30 credit hours of collegiate instruction
- ♦ Receipt of a credit-based degree, diploma, or certificate

### **4. OFFER INCENTIVES FOR SERVING DISADVANTAGED POPULATIONS LIKE LOW-INCOME WORKING ADULTS**

Because low-income, low-skill working adults often confront multiple barriers to college success, systems of performance funding should offer institutions incentives for serving disadvantaged populations. One method is to assign weights to performance criteria. In Tennessee, for instance, successes achieved by adult students and individuals eligible to receive federal Pell Grants carry a 40 percent premium, while Washington weighs outcomes in basic literacy and developmental education so as to reward schools for serving students facing significant obstacles to success. Related strategies include tailoring performance criteria by institutional type, as occurs in Ohio, measuring performance relative to an institution’s own history, as Tennessee does to avoid

penalizing schools with large numbers of at-risk students.<sup>51</sup> When developing such incentives, however, states must be careful to avoid inadvertently creating incentives that lead colleges to “cream” students from within targeted populations.

### **5. EMPHASIZE THE DEVELOPMENT OF ROBUST STATE DATA SYSTEMS AND OUTCOME MEASUREMENTS**

Any model of performance-based funding is ultimately only as strong as the underlying data used to gauge performance. Yet many state data systems fail to capture or combine “information from K-12, workforce development, and postsecondary education programs (primarily from public institutions), including adult basic education and skills development programs systems,” to say nothing of employment outcomes.<sup>52</sup> Without such data, it is difficult to use models of performance funding to connect the outcomes achieved by postsecondary programs to broader state policy goals, a situation that undercuts one of the main reasons for implementing performance funding. Especially critical is the development of the capabilities needed to measure success among students facing obstacles to college success. The ability to track performance among at-risk groups like adult learners, non-English speakers, and recipients of Pell Grants is vital for identifying the points in the education pathway where students are apt to stumble. In particular, WFPF state partners should support the development of state data systems able to disaggregate information about low-income working adults as a discrete population.



## POLICY RECOMMENDATIONS

- ♦ Articulate the connection between postsecondary success and economic prosperity for all
- ♦ Define postsecondary education to include the greatest numbers of students and programs
- ♦ Adopt performance criteria that reward ultimate and intermediate educational outcomes
- ♦ Offer incentives for serving disadvantaged populations like low-income working adults
- ♦ Emphasize the development of robust state data systems and outcome measurements

## CONCLUSION

Recent years have seen renewed interest in performance funding as a tool for improving the performance of public higher education and aligning outcomes with larger state economic and workforce development goals. While performance funding is an appealingly simple concept, it has had a turbulent history. New approaches, however, are attempting to learn from the successes and failures of past experiments and structure systems in ways that improve institutional outcomes, achieve broad state policy goals, and create opportunities for individuals from disadvantaged backgrounds. As models of performance funding spread to other states, the organizations that partner with the WPPF are uniquely equipped and positioned to contribute to the policy debates and project designs to help ensure that new models of performance funding work for the benefit of America's low-income working families.

For questions about this policy brief or the Working Poor Families Project contact:

Brandon Roberts  
robert3@starpower.net

**Appendix 1: Table 1. Performance Funding for Public Higher Education\***

Appendix 1: Table 1. Performance Funding for Public Higher Education*		
A) States that Have or Have Had Performance Funding		
State	Performance Funding Before 2007	Performance Funding After 2007
<b>Arkansas</b>	<b>X (discontinued)</b>	
<b>Colorado</b>	<b>X</b>	
<b>Connecticut</b>	<b>X</b>	
Florida	X (partly discontinued)	
<b>Kentucky</b>	<b>X (discontinued)</b>	
Idaho	X	
Hawaii		X
<b>Illinois</b>	<b>X (two-year colleges only, discontinued)</b>	<b>X</b>
<b>Indiana</b>	<b>X (discontinued)</b>	<b>X</b>
Kansas	X	
Louisiana	X	X
<b>Massachusetts</b>		<b>X</b>
Minnesota	X (discontinued)	
Missouri	X (discontinued)	
<b>New Jersey</b>	<b>X (discontinued)</b>	
<b>New York</b>	<b>X (four-year colleges only)</b>	
<b>New Mexico</b>	<b>X (discontinued)</b>	
<b>North Carolina</b>	<b>X</b>	
<b>Ohio</b>	<b>X (partly discontinued)</b>	<b>X</b>
Oklahoma	X	
Oregon	X	
Pennsylvania	X	X
South Carolina	X	
South Dakota	X	
Tennessee	X	X
<b>Texas</b>	<b>X (only for developmental education, discontinued)</b>	<b>X</b>
Virginia	X (discontinued)	
<b>Washington</b>	<b>X (discontinued)</b>	<b>X</b>
B) States Considering or that Have Recently Considered Performance Funding		
<b>Arkansas</b>	<b>Colorado</b>	<b>Connecticut</b>
<b>Mississippi</b>	North Dakota	Oregon
South Carolina	Utah	Virginia
West Virginia		

Note: **Bold** denotes a state with a WFPF state partner.

\* Compiled in May 2012 with best available information.

Sources: Achieving the Dream, Inc., *Tying Funding to Community College Outcomes: Models, Tools, and Recommendations for States*, ed. David Altstadt (Boston: Jobs for the Future, 2012), 26-32; Joseph Burke and Henrik Minassians, *Performance Reporting: "Real" Accountability or Accountability "Lite" Seventh Annual Survey 2003* (Albany, NY: Nelson A. Rockefeller Institute of Government, 2003), 5; Kevin Dougherty and Esther Hong, *State Systems of Performance Accountability for Community Colleges: Impacts and Lessons for Policymakers* (Boston: Jobs for the Future, 2005), 3; Kevin Dougherty and Monica Reid, *Fifty States of Achieving The Dream: State Policies to Enhance Access to and Success in Community Colleges across The United States* (New York: Community College Research Center, 2007), 26; Thomas Harnish, *Performance-Based Funding: A Re-Emerging Strategy in Public Higher Education Financing* (Washington, DC: American Association of State Colleges and Universities, 2011), 3-6 and 9-10; and National Conference of State Legislatures, "Higher Education Legislation in 2011," accessed on May 1, 2012, <http://www.ncsl.org/issues-research/educ/highereducationlegislation2011.aspx>.

## ENDNOTES

<sup>1</sup> John Quintero is a principal with South by North Strategies, Ltd., a research firm specializing in economic and social policy. Rebecca Clendenin provided editorial assistance. Thanks to David Altstadt of David Altstadt Consulting in Brattleboro, Vermont; Meegan Dugan Bassett of Women Employed in Chicago, Illinois; Roberta Garber of Community Research Partners in Columbus, Ohio; Leslie Helmcamp of the Center for Public Policy Priorities in Austin, Texas; Michael Leach of the Arkansas Association of Two-Year Colleges in Little Rock, Arkansas; Tony Lee of Solid Ground in Seattle, Washington; Alexandra Forter Sirota of the North Carolina Budget and Tax Center in Raleigh, North Carolina; and Lisa Travis of the Indiana Community Action Association in Indianapolis, Indiana, for their willingness to share their thoughts and experiences related to performance funding models, practices, and policies. Thanks as well to Brandon Roberts and Deborah Povich of The Working Poor Families Project for their comments and feedback.

<sup>2</sup> Brandon Roberts, Deborah Povich, and Mark Mather, *Overlooked and Underpaid: Number of Low-Income Working Families Increases to 10.2 Million* (Chevy Chase, MD: The Working Poor Families Project, 2009), 1, [http://www.workingpoorfamilies.org/pdfs/Overlooked\\_Dec2011.pdf](http://www.workingpoorfamilies.org/pdfs/Overlooked_Dec2011.pdf).

<sup>3</sup> Kevin Dougherty and Monica Reid, *Fifty States of Achieving The Dream: State Policies to Enhance Access to and Success in Community Colleges across the United States* (New York: Community College Research Center, 2007), 26, <http://ccrc.tc.columbia.edu/Publication.asp?UID=504>; Achieving the Dream, Inc. *Tying Funding to Community College Outcomes: Models, Tools, and Recommendations for States*, ed. David Altstadt (Boston: Jobs for the Future, 2012), 26-32, <http://www.jff.org/publications/education/tying-funding-community-college-outcomes/1398>; and Thomas Harnish, *Performance-Based Funding: A Re-Emerging Strategy in Public Higher Education Financing* (Washington, DC: American Association of State Colleges and Universities, 2011), 3, [http://www.congressweb.com/aascu/docfiles/Performance\\_Funding\\_AASCU\\_June2011.pdf](http://www.congressweb.com/aascu/docfiles/Performance_Funding_AASCU_June2011.pdf).

<sup>4</sup> Kevin Dougherty et al., *The Politics of Performance Funding in Eight States: Origins, Demise, and Change* (New York: Community College Research Center, 2011), 1, <http://ccrc.tc.columbia.edu/Publication.asp?UID=875>.

<sup>5</sup> Harnish, *Performance-Based Funding*, 2. National organizations supportive of performance funding include the Obama Administration, the Lumina Foundation, the Bill and Melinda Gates Foundation, the College Board, the National Governors Association, and the National Conference of State Legislatures.

<sup>6</sup> Kevin Dougherty and Vikash Reddy, *The Impacts of State Performance Funding Systems on Higher Education*

*Institutions: Research Literature Review and Policy Recommendations* (New York: Community College Research Center, 2011), 43, <http://ccrc.tc.columbia.edu/Publication.asp?uid=1004>.

<sup>7</sup> Dougherty and Reddy, *Impact of State Performance Funding Systems*, 40-42.

<sup>8</sup> Christopher Mullin, *Doing More with Less: The Inequitable Funding of Community Colleges* (Washington, DC: American Association of Community Colleges, 2010), 4, <http://www.aacc.nche.edu/Publications/Briefs/Pages/rb09082010.aspx>.

<sup>9</sup> Anthony Carnevale, Nicole Smith, and Jeff Strohl, *Help Wanted: Projections of Jobs and Education Requirements through 2018* (Washington, DC: Georgetown University Center on Education and the Workforce, 2010), 13, <http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/FullReport.pdf>.

<sup>10</sup> Roberts, Povich, and Mather, *Overlooked and Underpaid*, 1.

<sup>11</sup> Dougherty, *Politics of Performance Funding*, 1.

<sup>12</sup> North Carolina Community College System, *A Matter of Facts: The North Carolina Community College System Fact Book, 2008* (Raleigh, NC: Author, 2008), 9, <http://www.nccommunitycolleges.edu/Publications/docs/Publications/fb2008.pdf>.

<sup>13</sup> North Carolina Community College System, "Full-Time Equivalent (FTE) Values for Fiscal Year (5-years)," last updated on September 16, 2011, [http://www.nccommunitycolleges.edu/Program\\_Audit\\_Services/fteValues.htm](http://www.nccommunitycolleges.edu/Program_Audit_Services/fteValues.htm).

<sup>14</sup> For an illustrative comparison of the different funding models used in North Carolina for the university and community college systems, see John Quintero, *The Ghost in The Machine: The Student Credit Hour Funding Model & UNC Enrollment Growth* (Raleigh, NC: North Carolina Budget and Tax Center, 2008), <http://www.ncjustice.org/sites/default/files/btcbrief3july08uncfund.pdf>; and John Quintero, *Community College Crunch: Economic Downturn Drives Up Enrollments, Spotlights Funding Challenges* (Raleigh, NC: North Carolina Budget and Tax Center, 2008), <http://www.ncjustice.org/sites/default/files/btcbrief2may08ncccs.pdf>.

<sup>15</sup> For an illustrative discussion of some of the concerns of two-year colleges with enrollment-based funding formulas, see John Quintero, "Key Issues Facing The N.C. Community College System: Enrollment Trends, Faculty Compensation, Funding Formulas, and Strategic Planning," *North Carolina Insight*, May 2008.

<sup>16</sup> Dougherty and Reddy, *Impact of State Performance*

- Funding Systems*, 1.
- <sup>17</sup> Harnisch, *Performance-Based Funding*, 2.
- <sup>18</sup> Dougherty and Reddy, *Impact of State Performance Funding Systems*, 3. Emphasis in original.
- <sup>19</sup> Harnisch, *Performance-Based Funding*, 2.
- <sup>20</sup> Dougherty, *Politics of Performance Funding*, 14-17.
- <sup>21</sup> Dougherty and Reddy, *Impact of State Performance Funding Systems*, 6.
- <sup>22</sup> Dougherty and Reddy, *Impact of State Performance Funding Systems*, 6.
- <sup>23</sup> Dougherty and Reddy, *Impact of State Performance Funding Systems*, 8-9.
- <sup>24</sup> Dougherty, *Politics of Performance Funding*, 103-104.
- <sup>25</sup> Dougherty, *Politics of Performance Funding*, 131.
- <sup>26</sup> Dougherty, *Politics of Performance Funding*, 133-134.
- <sup>27</sup> Dougherty, *Politics of Performance Funding*, 56 and 131-132.
- <sup>28</sup> John Quintero, *The Great Cost Shift: How Higher Education Cuts Undermine The Future Middle Class* (New York: Dēmos, 2012), 19-20, <http://www.demos.org/publication/great-cost-shift-how-higher-education-cuts-undermine-future-middle-class>.
- <sup>29</sup> Carnevale, Smith, and Strohl, *Help Wanted*, 13.
- <sup>30</sup> Complete College America, *Shift to Performance Funding* (Washington, DC), 1, <http://www.completecollege.org/docs/CCA%20Essential%20Steps%20Shift%20to%20Performance%20Funding.pdf>.
- <sup>31</sup> Lumina Foundation for Education, *Strategic Plan: Goal 2025* (Indianapolis, IN: author, 2009), 1, [http://www.luminafoundation.org/goal\\_2025/lumina\\_strategic\\_Plan.pdf](http://www.luminafoundation.org/goal_2025/lumina_strategic_Plan.pdf).
- <sup>32</sup> Achieving the Dream, Inc. *Tying Funding to Community College Outcomes*, 27-32.
- <sup>33</sup> Dougherty and Reddy, *Impact of State Performance Funding Systems*, 6-7.
- <sup>34</sup> Dougherty and Reddy, *Impact of State Performance Funding Systems*, 10.
- <sup>35</sup> Achieving the Dream, Inc. *Tying Funding to Community College Outcomes*, 5-7.
- <sup>36</sup> Achieving the Dream, Inc. *Tying Funding to Community College Outcomes*, 19.
- <sup>37</sup> Achieving the Dream, Inc. *Tying Funding to Community College Outcomes*, 9-15.
- <sup>38</sup> Dougherty, *Politics of Performance Funding*, 116.
- <sup>39</sup> Illinois Board of Higher Education, *The Illinois Public Agenda for College and Career Success* (Springfield, IL: author, 2009), [http://www.ibhe.state.il.us/masterPlanning/materials/070109\\_PublicAgenda.pdf](http://www.ibhe.state.il.us/masterPlanning/materials/070109_PublicAgenda.pdf).
- <sup>40</sup> Illinois Board of Higher Education, “Higher Education Performance Funding Steering Committee: Introduction,” <http://www.ibhe.state.il.us/PerformanceFunding/default.htm>.
- <sup>41</sup> Dougherty, *Politics of Performance Funding*, 159.
- <sup>42</sup> National Center for Higher Education Management Systems, *Performance Funding: From Idea to Action* (Washington, DC: Complete College America, 2011), 4, <http://www.nchems.org/pubs/docs/Performance%20Funding%20121411.pdf>.
- <sup>43</sup> National Center for Higher Education Management Systems, *Performance Funding*, 4.
- <sup>44</sup> Achieving the Dream, Inc., *Tying Funding to Community College Outcomes*, 3.
- <sup>45</sup> Dougherty, *Politics of Performance Funding*, 116.
- <sup>46</sup> Achieving the Dream, Inc., *Tying Funding to Community College Outcomes*, 29.
- <sup>47</sup> Dougherty and Reddy, *Impact of State Performance Funding Systems*, 43.
- <sup>48</sup> Dougherty and Reddy, *Impact of State Performance Funding Systems*, 19.
- <sup>49</sup> Harnisch, *Performance-Based Funding*, 8.
- <sup>50</sup> Quintero, *The Great Cost Shift*, 1.
- <sup>51</sup> Achieving the Dream, Inc., *Tying Funding to Community College Outcomes*, 20.
- <sup>52</sup> Jennifer Phillips, *Building and Strengthening State Data Systems to Measure Community College and Workforce Outcomes* (Chevy Chase, MD: The Working Poor Families Project, 2009), 2, <http://www.workingpoorfamilies.org/pdfs/WFPFpolicybrief-fall09.pdf>.